

## NOTES AND DESCRIPTIONS OF PERLIDÆ.

BY NATHAN BANKS, EAST END, VA.

In going through the accessions to my collection, I have found several new species and new localities for some known forms. Most of these are included in this paper.

*Perla capitata*, Pictet.

*P. capitata*, Pict.: Hist. Nat. des Neuropt., p. 214, 1841.

*P. tristis*, Hagen: Syn. Neur., N. Amer., p. 22, 1861.

On comparing specimens of *P. tristis* with Pictet's figure and description, I find that these species are identical, a fact which I had suspected before.

*Perla fumosa*, n. sp.

Head orange yellow, a large black spot covering the lateral ocelli and extending forward to the clypeus, a brown spot above each eye; basal joint of antennæ dark brown, rest pale yellowish brown; pronotum wholly dark brown; thorax yellow above, with brown spots on mesothorax; abdomen pale yellowish brown; venter yellowish, as is also the under side of the thorax; legs dark brown, but little paler beneath; setæ yellow on base, brown beyond; wings slightly fumose, veins brown. Pronotum very much narrower behind than in front, its sides straight, angles quite sharp. In the male there is a median brown spot on the last ventral segment.

Length, ♂, 16 mm.; ♀, 22 mm.

One pair taken together near Washington, D. C., 11th June, 1899. Readily separated from *P. capitata* by the yellow under side of thorax, etc.

*Perlinella sobria*, Hagen.

*Perla sobria*, Hag.: Bull. Geol. Surv. Terr., 1875, p. 577.

One specimen sent by Prof. Cockerell, collected at Las Vegas, New Mexico, June, 1901. It agrees very nicely with Hagen's description, and can be easily recognized by the three pale spots in a row between the eyes.

*Perlinella frontalis*, n. sp.

Head with a large pale yellowish spot each side above the eye and reaching to the posterior margin, almost touching each other on the median line, which is black; the posterior angles brown; a large blackish spot in the middle of the head, pointed behind, in the middle covering the lateral ocelli, and tapering forward to the clypeus, a yellow spot

each side above base of antenna, and connected to the yellow behind. Pronotum blackish, a small pale spot in middle of each side margin; rest of thorax dark brown; abdomen brown; venter pale brownish, with an elongate black spot on the side of each segment. Legs and setæ pale yellowish brown. Wings hyaline, veins mostly dark brown, some apical ones and some of the transversals yellowish brown. Radial sector two-forked beyond the anastomosis. Pronotum but slightly rugulose, its sides much rounded, as are also the posterior angles.

Length 13 mm.

One specimen, Beulah, New Mexico, May 30 (W. Porter).

*Perlinella signata*, n. sp.

Head pale yellowish; a blackish spot covering ocelli and extending forward, leaving a yellow mark over base of each antenna; within the dark mark are two median pale yellow spots, one between the ocelli, and another rather smaller in front of the median ocellus; antennæ brown; under side of head yellow. Pronotum brown, the side margin and a broad stripe in the middle yellowish; the ridges marked with black; rest of thorax brown, with a median yellow spot on front margin. Abdomen brown; venter and pectus pale yellow, a brown spot each side in front of second and third coxæ; legs and setæ pale yellow, the knees and tarsi more brown. Pronotum almost twice as broad as long, its sides nearly parallel and straight, angles almost acute. Wings hyaline, rather yellowish, veins brown, those of hind paler; radial sector twice-forked beyond the anastomosis. Ventral lamina entire, its apical margin evenly rounded.

Length 14 mm.

One female from Michigan, without further locality.

*Chloroperla 5-punctata*, n. sp.

Head pale yellow, the ocelli and lateral callosities black, the latter resembling ocelli; antennæ yellowish, upper side of basal joint brown. Pronotum pale yellow, with a large quadrangular brown spot on each side, leaving a rather broad median pale stripe; rest of thorax and the abdomen pale yellowish, as are also the legs and setæ; wings hyaline, veins pale yellowish brown, the costal ones on basal half pale yellow. Wings rather long and slender, the radial sector twice-forked beyond the anastomosis; pronotum rectangular, angles rather sharp, sides straight and parallel, about one and three-fourths times as broad as long.

Length 10 mm.

One specimen from Las Vegas, N. Mexico, by the Gallinas River,

June 9 (Cockerell) ; another specimen from Colorado, probably near Fort Collins.

*Nemoura venosa*, Banks.

I have taken this specimen at Washington, D. C.; the types came from Colden, N. Y.

*Nemoura Coloradensis*, Banks.

I have recently seen a specimen taken by Prof. Cockerell from top of range between Sapello and Pecos rivers, New Mexico, 11,000 ft., on August 2.

*Nemoura pallida*, n. sp.

Head, pronotum, thorax and legs pale reddish yellow ; ocelli and lateral callosities black ; tarsi brownish ; basal joint of antennæ yellowish, with brown above, rest of antennæ brownish. Abdomen brown ; wings yellowish hyaline, veins yellow-brown. Pronotum about one and two-thirds times as broad as long, as broad behind as in front, its sides slightly convex. Wings long and slender ; the cross-vein at end of discal cell, though very oblique, does not reach back to the fork of the median vein ; a striking character.

Length 10 mm.

One specimen from Little Beaver, Colorado, July 8.

## DESCRIPTION OF A NEW CARNEADES.

BY JOHN B. SMITH, SC. D.

*Carneades fusimacula*, n. sp.

Resembles *redimicula* in most points, but with the colours of *divergens*. The collar has the broad median black shade of *redimicula* ; but the primaries do not have the pale costa. Sub-costal and median veins gray. Ordinary spots outlined in gray, the orbicular oblong, oblique, open inferiorly and fused with the reniform, the outline being continuous. The spots are gray powdered and are preceded by black shadings in the cell. A blackish basal streak, to which is joined a long claviform extending half way across the median space : this is black-margined but concolorous. S. t. line not marked, apex grayish, terminal space else nearly concolorous. In other characters much like *divergens*, with which, also, it agrees in size.

*Habitat*.—California.